

REMARKS

Entry of this amendment in this application, and reconsideration of this application based on that amendment and these following remarks, are respectfully requested.

Claims 1 through 23 remain in this case. Amendment to claim 9 is proposed. Claims 19 through 23 are canceled.

Claim 9 was objected to, as lacking the verb "are". Claim 9 is proposed to be amended as suggested by the Examiner.

Claims 19 through 23 were finally rejected under §112, ¶2, as indefinite for failing to particularly point out and distinctly claim the subject matter of the invention. Claims 19 through 23 are canceled to advance the prosecution of this application, obviating the rejection of those claims.

Entry of this amendment is respectfully requested.

Claims 1 and 12 were rejected under §103 as unpatentable over the Oguchi et al. reference¹ in view of the Ito et al. reference². The Examiner asserted that the Oguchi et al. reference teaches all of the steps of claim 1, and all of the elements of claim 12, except for the storing of chromaticity data at the projector. The Examiner asserted that the Ito et al. reference, by way of its "backward LUT", stores color gamut information in a memory of its device, and that this reference is combinable with the Oguchi et al. reference because both are from the same field of endeavor, namely color correction.³ The Examiner further asserted that it would have been obvious to modify the teachings of Oguchi et al. with the backward LUT of the Ito et al. reference, to store chromaticity data in each projector, in order to allow automated calculation of

¹ U.S. Patent No. 6,340,976 B1, issued January 22, 2002 to Oguchi et al., from an application filed August 17, 1999 via PCT International Application PCT/JP98/01709 filed April 15, 1998.

² U.S. Patent No. 6,388,674 B1, issued May 14, 2002 to Ito et al., from an application filed May 21, 1999.

³ Office Action, *supra*, pages 4 and 5.

BEST AVAILABLE COPY

color correction data rather than have human entry of that data, and to save cost by not requiring the chromaticity sensors.⁴ The claims were rejected accordingly.

The dependent claims from claims 1 and 12 were also finally rejected under §103 as unpatentable over these two references, and further in view of other references of record.

Applicant respectfully traverses the §103 rejection of claim 1 and its dependent claims, and respectfully requests that the final rejection be withdrawn, on the grounds that the combined teachings of the Oguchi et al. and Ito et al. references fall short of the requirements of the claims.

Applicant agrees with the Examiner that the Oguchi et al. reference fails to disclose that each projector has chromaticity data representing a color gamut stored therein. Applicant also agrees that the Ito et al. reference discloses a backward look-up table ("LUT") for changing a chroma signal to a device signal.⁵ However, Applicant submits that this backward LUT, and any chromaticity data that may be stored in that LUT, are never communicated to a main controller according to the Ito et al. reference. As such, Applicant submits that the combined teachings of the Oguchi et al. and Ito et al. references fall short of the claims.

It is instructive to compare the manner in which chromaticity data is acquired in the Oguchi et al. and Ito et al. references. According to the Oguchi et al. reference, chromaticity information for the multiple projector units is obtained from chromaticity sensors that are set between the screen units, and that "perform colorimetry" of the projector units without color conversion.⁶ As mentioned above, the Examiner found that this operation of the Oguchi et al. reference fell short of claim 1, because it provides no teaching regarding the storing of chromaticity data at the projector. Applicant submits that the Ito et al. reference teaches the obtaining of chromaticity data in exactly the same way as in the Oguchi et al. reference. According to the Ito et al. reference, a "spectroscopic colorimeter" is used to measure the color value of each of multiple color patches displayed by the particular device.⁷ These color values

⁴ *Id.*

⁵ Ito et al., *supra*, column 6, lines 15 through 25.

⁶ Oguchi et al., column 5, lines 46 through 50.

⁷ Ito et al., *supra*, column 6, lines 35 through 39.

are used to generate a forward LUT for mapping device-dependent color signals to device-independent color signals,⁸ and the backward LUT for mapping device-independent color signals to device-dependent color signals is then created by inverse transform of the forward LUT.⁹ Accordingly, the chromaticity data that is acquired according to the Ito et al. reference is acquired in exactly the same manner as taught in the Oguchi et al. reference. The Ito et al. reference therefore adds no teachings to those of the Oguchi et al. reference regarding how the controller (*i.e.*, the system that is generating the forward and backward LUTs) obtains chromaticity data for its system devices.

Applicant agrees that, to the extent that the backward LUT of the Ito et al. reference stores "chromaticity data", this storing is at the particular device.¹⁰ However, the Ito et al. reference nowhere discloses that this backward LUT chromaticity data is ever communicated to a main controller. Rather, it appears that the backward LUT is generated and then stored at the device, for use by the device itself for its color display or printing. According to this reference, there is no need for that information, once generated and stored, to be communicated again to a controller, and no such communication of that information is in fact disclosed.

Claim 1 and its dependent claims, on the other hand, not only require the storing of chromaticity data in the at least two projectors of the system, but also the communicating of that chromaticity data to a main controller, from which the determining and calculating steps are then performed. Because the Oguchi et al. reference does not disclose the storing of chromaticity data at its projectors, it necessarily fails to disclose the communicating of that stored data to a main controller. And while the Ito et al. reference discloses storing its backward LUT at its devices, the reference neither discloses nor suggests the communicating of that stored data to a main controller, much less the calculating of color correction data based on that communicated stored data. Accordingly, Applicant submits that the combined teachings of the applied references fall short of the requirements of claim 1, and respectfully traverses the §103 rejection.

⁸ Ito et al., *supra*, column 6, lines 18 through 22, lines 41 through 50.

⁹ Ito et al., *supra*, column 6, lines 22 through 25, lines 51 through 60.

¹⁰ Ito et al., *supra*, column 6, lines 4 through 7.

Applicant further traverses the final rejection of claim 1, on the grounds that the motivation alleged by the Examiner for combining is based on a misinterpretation of the teachings of the Ito et al. reference. In making the §103 rejection, the Examiner asserted that the motivation to combine these teachings was:

to be able to allow automated calculation of color correction data (because the controller can obtain chromaticity data from a projector connects [sic] directly, instead of having to have someone to enter it) and save cost (by not having to have a separate set of chromaticity sensors).¹¹

However, as mentioned above, the Ito et al. reference acquires its alleged chromaticity information in the same manner as the Oguchi et al. reference teaches, using a "spectroscopic colorimeter", and generates its backward LUT information from that acquired colorimetry information. Once the backward LUT is generated, its contents are not communicated back to the controller of the Ito et al. system. As such, the Ito et al. reference simply does not provide the stated motivation of allowing "automated calculation of color correction data" because the controller can obtain chromaticity data directly from a projector". Accordingly, Applicant respectfully submits that the final rejection of claim 1 under §103 is based on an error in fact. Applicant therefore respectfully traverses the rejection, and requests its withdrawal.

The other references that were applied against claims dependent on claim 1 add no teachings regarding the storing of chromaticity data at each of at least two projectors, or the communicating of that chromaticity data to a main controller for calculating color correction data for each projector, as required by claim 1. Nor did the Examiner assert that these references provided such teachings. Accordingly, Applicant respectfully submits that claim 1 and its dependent claims are all patentably distinct over the prior art of record in this case.

Claim 12 was finally rejected under §103 as unpatentable over the Oguchi et al. reference in view of the Ito et al. reference, on similar grounds as claim 1.¹² Its dependent claims were rejected as unpatentable in view of these two references, and further in view of other various references that were asserted against the particular limitations in those claims. And for similar

¹¹ Office Action, *supra*, page 5.

reasons as discussed above, Applicant traverses the final rejection of claim 12 and its dependent claims.

Claim 12 is directed to a display system comprising at least two projectors, each projector storing chromaticity data, and where at least one of those at least two projectors is operable to deliver its chromaticity data to a main controller, to receive color correction data from that main controller, and to calculate pixel values based on that color correction data.

Similarly as argued above, Applicant submits that the combination of the Oguchi et al. and Ito et al. references falls short of the requirements of claim 12, because neither reference discloses a projector that is operable to deliver its stored chromaticity data to a main controller, as required by claim 12. As mentioned above, the Examiner admitted that the Oguchi et al. reference does not disclose the storing of chromaticity data; Applicant agrees with that admission.

However, while the Ito et al. reference teaches the storing of a backward LUT in its system devices, such as monitors and printers, Applicant submits that there is no disclosure or suggestion in that reference of the delivery of that stored chromaticity data to a main controller, as required by claim 12. As urged above, the Ito et al. reference teaches the obtaining of chromaticity data in exactly the same way as that information is obtained according to the Oguchi et al. reference, which the Examiner found to fall short of the claims. Specifically, the Ito et al. reference discloses using a "spectroscopic colorimeter" to measure the color value of each of multiple color patches displayed by the particular device,¹³ and the use of these measurements to derive a forward LUT for mapping device-dependent color signals to device-independent color signals,¹⁴ and by operation of an inverse transform, a backward LUT for mapping device-independent color signals to device-dependent color signals.¹⁵ As such, to the extent that chromaticity data is acquired according to the Ito et al. reference, this data is not delivered by one of at least two projectors as in the system of claim 12. Instead, the data is

¹² Office Action, *supra*, page 4.

¹³ Ito et al., *supra*, column 6, lines 35 through 39.

¹⁴ Ito et al., *supra*, column 6, lines 18 through 22, lines 41 through 50.

obtained by way of a separate device, in the same manner as according to the Oguchi et al. reference. And the Ito et al. reference nowhere discloses that any chromaticity data stored at a peripheral device, whether stored in its backward LUT or otherwise, is communicated to a main controller. Rather, once the backward LUT of the Ito et al. reference is generated and stored at the device, according to the reference there is no further need for that information to be communicated again to a controller. As such, the Ito et al. reference discloses no such communication of that information.

Applicant therefore submits that the combined teachings of the applied references fall short of the requirements of claim 12, and respectfully traverses the §103 rejection.

Applicant further traverses the final rejection of claim 12 because the motivation asserted by the Examiner for combining the Oguchi et al. and Ito et al. teachings is not in fact present in the references. As discussed above, the Examiner alleged that one would be motivated to combine these references in order to automate the calculation of color correction data, because the controller can obtain this chromaticity data direction from the projector rather than from human data entry, and to save cost by eliminating the need for separate sensors.¹⁵ However, because the Ito et al. reference teaches the acquisition of this data in the same manner as does the Oguchi et al. reference, this motivation is in fact not present in the Ito et al. reference. Indeed, as discussed above, the Ito et al. reference does not disclose communicating the backward LUT information from its device to its controller, once the backward LUT is generated from measurements made by the "spectroscopic colorimeter". Accordingly, Applicant respectfully submits that the final rejection of claim 12 under §103 is in error, and respectfully traverses the rejection.

The other references that were applied against dependent claims 13 through 18 add no teachings regarding the storing of chromaticity data at each of at least two projectors, or the ability to deliver that chromaticity data to a main controller for calculating color correction data for each projector, as required by claim 12, nor was it asserted that these references provided

¹⁵ Ito et al., *supra*, column 6, lines 22 through 25, lines 51 through 60.

¹⁶ Office Action, *supra*, page 5.

such teachings. Accordingly, Applicant respectfully submits that claim 12 and its dependent claims are all patentably distinct over the prior art of record in this case.

The reference cited by the Examiner as pertinent but not applied has been considered, but is not felt to come within the scope of the claims in this case.

For the above reasons, Applicant respectfully submits that all claims now in this case are in condition for allowance. Reconsideration of the above-referenced application is therefore respectfully requested.

Respectfully submitted,



Rodney M. Anderson

Registry No. 31,939

Attorney for Applicant

Anderson, Levine & Lintel, L.L.P.

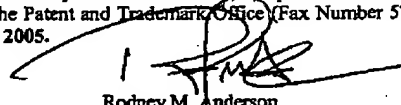
14785 Preston Road, Suite 650

Dallas, Texas 75254

(972) 664-9554

CERTIFICATE OF FACSIMILE TRANSMISSION
37 C.F.R. 1.8

The undersigned hereby certifies that this correspondence is being facsimile transmitted to the Patent and Trademark Office (Fax Number 571-273-8300) on October 24, 2005.



Rodney M. Anderson
Registry No. 31,939